

ABSTRACT

After binarization is performed, the adjacency relationship of connection fields is analyzed from a labeled input image on the basis of the characteristics of the structure of a barcode, thereby extracting a barcode field. A unit width, which is to be used as the module width of the barcode, is determined in accordance with the widths of the connection fields of black pixels in the extracted barcode field. Based on the arrangement of the magnification of the unit width, the barcode is recognized by collating a prescribed barcode pattern with the input width pattern. In the aforementioned collation, the influence of noises, for example, can be reduced by setting an allowable range for the collation of the widths in each magnification, and the barcode can be recognized in an improved precision even in a low-resolution image photographed using a small image sensor built in a mobile terminal.